DOCUMENT RESUME

ED 297 592 FL 017 501

AUTHOR Shimatani, Hiroshi
TITLE An Examination of the Monitor Theory.
PUB DATE [88]
NOTE 20p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Language Processing; *Learning Theories; *Second Language Learning; *Skill Analysis; Theory Practice Relationship
IDENTIFIERS Krashen (Stephen); *Monitor Theory

ABSTRACT

A discussion of Stephen Krashen's Monitor Theory (1982) of second language acquisition examines five main hypotheses: the acquisition-learning distinction, the natural order hypothesis, the monitor hypothesis, the input hypothesis, and the affective filter hypothesis. Several problematic elements of the theory are pointed out. The discussion supports the basic importance of conscious learning, which is disregarded in the Monitor Theory, and suggests an alternative way to look at language acquisition and learning phenomena from broader perspectives taking into account both skill acquisition theory and human information processing theory. More empirical research needs to be done to identify the developmental stages in second language acquisition and to define the most effective practice at each stage. (Author/MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
H. Shimatani
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

An Examination of the Monitor Theory

Hiroshi Shimatani

Kyushu Kyoritsu University

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
✓ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED297592

I. Introduction

Recently many new approaches to language teaching and learning have been introduced to the field of ESL/EFL. Since each one seems to claim that it is best or most effective, both learners and teachers have difficulty in deciding which one to accept. The confusion in our field is no doubt due to the fact, apart from other things, that there is still no completely satisfactory theory of foreign language learning.

Several recent ESL approaches in vogue recommend focusing on the natural and communicative use of language and avoiding conscious and mechanical learning. One of the most influential and popular theories is Krashen's (1982) Monitor Theory which is based on some well-known, but still controversial hypotheses. In this paper some inadequacies in Monitor Theory are discussed. It is argued that a new method based on the Monitor theory will probably not work entirely successfully in a classroom setting; lastly an alternative way to look at language acquisition and learning phenomena from broader perspectives is suggested.

II. An Overview of the Monitor Theory

Much has been written about the pros and cons of the Monitor Theory in ESL/EFL literature. It is time to take a careful and cautious look at the overall framework of the theory. First of all, let me offer a brief outline of Krashen's (1982) hypotheses in his Monitor Theory. The theory consists of five main hypotheses: the acquisition-learning distinction; the natural order hypothesis; the Monitor hypothesis; the input hypothesis; and the Affective Filter

FL017501

hypothesis.

The acquisition-learning distinction seems to be the underlying hypothesis among the five because the other four hypotheses relate predominantly to acquisition, not to learning. The hypothesis assumes that adults have two independent processes of approaching a new language. The first process is called language acquisition. It is regarded as a subconscious process which is similar to the way children develop the ability to use their first language (L1). The subconscious acquisition can take place only through informal, implicit learning. The second process is called language learning. This conscious process leads to knowledge of explicit, formal, linguistic rules of the target language. Learning does not lead to acquisition or to the ability to use a language naturally for communication. On the basis of this distinction, it is claimed that acquisition is far more important than learning in a classroom.

The natural order hypothesis says that people acquire language items in a predictable order. This hypothesis, supported by studies on morpheme acquisition, claims that without conscious learning second language (L2) learners acquire grammatical morphemes in a natural order which is not affected either by age or by native language.

The Monitor hypothesis assumes that normal, fluent speech utterances come from subconscious processes defined as acquisition, not from conscious processes called learning. In addition, it claims that what people have consciously learned is only used to change or monitor the output which is initiated by the acquired system. The hypothesis also insists that for the Monitor to function successfully the speaker needs: sufficient time; focus on form; and knowledge of the rule. Since L2 learners cannot do all three of these in natural conversations, the Monitor is said to be of little use.

The input hypothesis says that people acquire new language by understanding comprehensible input that is a little beyond the

learner's stage of development. The input is supposed to be understood with help from context, knowledge of the world, or extra-linguistic information. However, the learner may be able to process only one part of the input. That part is defined as intake. Further, the input hypothesis claims that the production of the target language will come out over time if the learner gets sufficient intake from the roughly-tuned comprehensible input.

The Affective Filter hypothesis posits an affective filter which can keep input from becoming intake. It says that L2 learners with high motivation, high self-confidence and low anxiety can acquire the target language naturally while learners with a high affective filter cannot acquire with full efficiency even though they are exposed to comprehensible input and understand it.

III. Problematic Elements of the Monitor Theory

The Monitor Theory described above has attracted many ESL/EFL learners and teachers who were not satisfied with the traditional or incomplete acquisition theories. The theory simply says that language acquisition takes place by itself if the learners have comprehensible input and a low affective filter where they can focus on the meaning instead of the form. However, the theory does appear to have defects.

A. The Vague Distinction between Acquisition and Learning

The acquisition-learning distinction may have impressed so many language teachers because classroom instruction was extremely devoted to learning and because many learners and teachers had grown tired of it. However, the distinction is not, in the opinion of many, well documented. First, the acquisition-learning distinction hypothesis is not based on a clear definition of consciousness and subconsciousness. As McLaughlin (1978) points out, conscious learning is just identified with judgements of grammaticality based on "rule" and subconscious

acquisition identified with judgements based on "feel." The ambiguity of the definition makes it almost impossible to differentiate subconscious acquisition from conscious learning precisely. Some learners appear to start with a conscious rule which they eventually use unconsciously (Munsell and Carr 1981). Second, the hypothesis only deals with two levels of consciousness: consciousness and subconsciousness. Leontev (cited in Takala 1984, 161) hypothesizes at least four levels of consciousness: current (focal) awareness, conscious control, unconscious control, and nonconsciousness. Takala (1984) also reports that any aspect of language is to be the object of focal awareness, depending on the situation, context, and task.

The acquisition-learning distinction hypothesis does highlight the difference between conscious attention and unconsciousness without dealing with the details of the consciousness and unconsciousness. As Munsell and Carr (1981) suggest, language acquisition begins when the learners arrive at a stage of awareness of a certain feature of a rule, though they may not be able to remember that awareness accurately later on. In this sense, acquisition and learning should be regarded as a continuum (e.g., Morrison and Low 1983; Littlewood 1984). That is, there is no sharp dividing line between them. Therefore, we may need to modify Krashen's acquisition-learning distinction, though the major role of unconscious processes and limitations of conscious processes must be considered carefully.

B. Unknown Quantities of Second Language Acquisition Mechanisms

The natural order of acquisition hypothesis is important not only because it postulates that there is an innate universal grammar underlying all human languages, but also because it gives credit to the assumption that both L1 and L2 acquisition can be initiated and controlled by the same language acquisition device (LAD). Krashen (1982) assumes that L2 adults can access the same LAD used in L1 and

can acquire language beyond the "critical period" for language acquisition.

Language is no longer regarded as strictly the same as learned behavior. Experts seem to agree that there is a universal grammar underlying all human languages and several studies support the assumption that children possess a genetically preprogrammed knowledge of grammar (e.g., Lenneberg 1967; Bickerton 1981; Littlewood 1984), although no one has identified exactly what it is.

The recent large-scale longitudinal study of L1 acquisition reported by Skehan (1987) confirms the existence of an invariant developmental sequence in L1 children's acquisition which was suggested by Brown (1973). Although some L2 studies on grammatical morpheme acquisition show that people acquire grammatical items in a similar order regardless of age or native language, it is still controversial whether or not the developmental orders found in L2 acquisition are as consistent as those in L1 acquisition. Littlewood (1984) summarizes several problems found in these L2 acquisition studies. First, most of the L2 acquisition studies are not longitudinal. Second, the language data used are not natural speech utterances but are elicited by artificial devices. Third, it is not difficult to find variances in the order obtained from one learner, depending on the output task.

The natural order hypothesis challenges Lenneberg's (1967) critical age hypothesis. According to the critical age hypothesis, the ability to acquire language ceases at around puberty when lateralization is complete. Lateralization refers to the localization of various cognitive functions primarily on one side of the brain. Genie's case reported by Fromkin et al (1985) shows that some degree of L1 acquisition is possible beyond the critical period; however, it should be noted that Genie's linguistic ability did not arrive at the level of competence of normal five-year-old children (Pines 1985).

Several other L2 acquisition studies report the evidence of universal grammar in the acquisition of both L1 and L2 (Gass and Ard 1984; Kumpf 1984; Flynn 1984; and Wode 1984). For example, Kumpf (1984) reports that tensing is employed universally when referring to states and noncompleted action but it is not employed when referring to complete action. She, therefore, concludes that L2 learners use the same language capacity as L1 children do. Gass and Ard (1984) insist that language universals constrain adult L2 acquisition. However, despite the preliminary support, there is no complete study which conclusively shows that L2 adults can acquire language in the same way as children do.

The natural order of acquisition hypothesis, thus, may be partly right, but it seems impossible to assert conclusively that L2 adults can acquire language by accessing the same natural LAD that L1 children use. A more cautious and realistic conclusion is that the operation of the LAD used by L2 learners is in some respects different from that of the L1 children's LAD although it is uncertain whether the LAD is the same or not. It appears, therefore, premature to claim that L2 adult learners can rely on only natural language acquisition mechanisms.

C. The Limitations of the Monitor Hypothesis

One limitation of the Monitor hypothesis comes from the definition of the function of the monitor. Krashen (1982) uses the term Monitor in a very narrow sense. It refers to the conscious application of formal rules of grammar. He states that the Monitor is most useful on grammar tests, hardly available at all in oral communication, and is only used to some degree in composition. Further, most language learners are regarded as either Monitor under-users who do not use conscious rules under any conditions or Monitor over-users who rely on conscious rules too heavily.

The Monitor hypothesis appears to disregard the complexity and effect of monitor functions. Morrison and Low (1983) present evidence of monitoring at four different levels: at the level of vocabulary, syntax and morphology, discourse, and simple truth. The monitor is said to be used to check social appropriateness, grammaticality, and simple truth value. From this broad point of view, Morrison and Low (1983) suggest that monitoring should play an important role in language acquisition and language use on the part of all learners in various situations. In this sense, we should perhaps define monitoring as our awareness of language, which appears to be one of the essential components in all successful language acquisition.

Another problem found in the Monitor hypothesis is the fact that it does not tell us how to monitor the output ideally. Krashen (1982) admits the existence of super Monitor-users who can use conscious learning as a supplement to their acquired competence. He implies that ideal Monitor-users can use their conscious Monitor effectively; however, he neglects to define clearly the effective use of the Monitor or how to foster this use. According to VanPatten (1984a), in certain stages of L2 development only communicatively important items get processed and communicatively less important items are ignored. He argues that L2 learners may fossilize if they do not pay attention to items of lesser communicative value. So we need to search for effective monitoring strategies which improve the accuracy of the output. It will be dangerous to neglect them completely, especially in dealing with "fossilization."

D. The Limitations of the Input Hypothesis

The input hypothesis clearly and plausibly explains how input becomes intake. Yet exactly how the learners acquire the structure of the target language is uncertain because when they understand comprehensible input they are focused on the meaning and not on the

form. VanPatten (1984b) asserts that L2 learners will not acquire form if they are placing all their attention on meaning.

Three pieces of evidence supporting the input hypothesis are presented by Krashen (1982). First, L1 children acquire language by understanding caretaker speech which is modified not in order to teach language but to aid comprehension and is roughly tuned to the child's level of development. The caretaker's roughly-tuned speech and its focus on the "here and now" makes the new structures comprehensible. Second, evidence comes from L2 acquisition that speech by native speakers to L2 learners, such as teacher talk and foreigner talk, is modified to aid communication. The simplified speech also contains structures which are roughly tuned to the learner's current level of proficiency. Third, evidence derives from the "silent period" when L2 children are not forced to speak. Krashen (1982) claims that the silent period exists because children are acquiring rules by listening rather than by speaking and that L2 learners need a period of time devoted to understanding prior to production.

The first type of evidence concerning L1 acquisition may contain a significant misinterpretation of the data. It is assumed that children with innate capacity to develop language get intake subconsciously from comprehensible input and caretakers provide the input without the intention of teaching. In fact, even L1 children are learning language consciously and caretakers are teaching it unconsciously. Holzman (1984) points out that caretaker speech alters depending on the child's level of language development, and thinks of the caretaker's behavior as language lessons appropriate to the child's developing competence even if not intended as lessons. It is assumed that competent speakers have an innate propensity to teach language by shortening and simplifying their utterances.

It seems wrong to say that L1 children do not learn consciously, even though they may not be able to state conscious grammatical rules.

Moskowitz (1985) reports that many children purposefully practice language when they are alone. Weir (1962) taperecorded pre-sleep monologues by her 2-year-old son and found that her son played with sounds, words, and phrases in imaginary dialogues. Oller (1983) makes a similar point about his three-year-old son. Even children, thus, seem to be very aware of what they are learning. To illustrate this more scientifically, Jakovits' study (reported in Takala 1984, 163) estimates that a child needs about 3,000 hours to learn the basic structures of L1.

The second claim that teacher talk and foreigner talk have similar characteristics to caretaker speech is also weak. The input available to L2 adults is not the same as that to L1 children. For instance, adults talk with other adults about complex ideas, but they talk with children about the "here and now" (Moskowitz 1985; Hatch et al 1985). Further, the most significant difference between teacher talk and caretaker speech is found in the nature of language use. Long (1975) cites Ervin-Tripp's report and indicates that the teacher attends to the grammatical errors but not to the truth value in student's responses. The distinctive character of teacher talk is confirmed by Long (1983), who reports that teacher talk consists of many display questions but only a few referential questions. Display questions refer to known information questions (classroom questions) such as "Are you a student?"; referential questions refer to unknown information questions (real questions) such as "What are you going to do after class?" Pica et al (1987) report that linguistically modified teacher talk makes little difference promoting comprehension; while the repetition of input appearing in oral interactions between learners and teacher is an important factor in comprehension.

The existence of a so-called "silent period" to support the input hypothesis is also questionable. Gibbons (1985) challenges the nature and cause of the silent period. He argues that children are silent

because they are surrounded by incomprehensible speech and that the duration of the silent period varies greatly among the individuals perhaps because of personality differences, language shock, or culture shock. The silent period can be viewed as a period of "silent incomprehension" (Gibbons 1985, 261). Further, Swain (1985) casts doubts on the value of the silent period in the classroom. As a result of the observation in a French immersion class, Swain (1985) asserts that providing learners with only comprehensible input is not enough for them to acquire productive skills and grammatical competence. As Long (1983) suggests, L2 acquisition seems to be fostered with the interplay of the comprehensible input and the productive use of language termed by Swain (1985) as "comprehensible output."

As shown above, the input hypothesis is not well supported either by theory or by research. Although we should not abandon the great insight regarding comprehensible input, Krashen's (1982) language production model--depending on the modified teacher talk as input--needs to be reconsidered. What the hypothesis might better have said is that the learner is probably focused on both the meaning and the form of the comprehensible input and that by processes not yet known the learner understands and learns to use both the forms and the meanings through comprehensible output.

E. The Problems of the Affective Filter Hypothesis

The Affective Filter hypothesis presents explanations about an ideal situation where language acquisition can take place. Indeed, persons with high motivation and high self-confidence can probably learn much better than similar ones who have low motivation and low self-confidence. Yet it is impossible to make all the learners in a class highly motivated and self-confident. No teacher can lower anxiety levels completely because many things affect personal stress

beyond what can be managed in a classroom. Further, psychological research suggests that a low-anxiety environment is not always the best place to learn. Littlewood (1984) reports that a certain amount of anxiety can stimulate a learner to put more energy into learning.

It is doubtful that an ideal environment can be created as a condition for effective teaching in the real world. Unfortunately the Affective Filter could function as a filter against criticism of the Monitor Theory. If there is failure in language acquisition, the presumed level of the Affective Filter can always be pointed to as a reason for the failure.

IV. Missing Components in the Monitor Theory

The five hypotheses discussed above show some inadequacies in the Monitor Theory. Since each hypothesis is flawed, the overall theory must also be flawed. Although parts of the Monitor Theory may be usable, a new methodology based heavily on the Monitor Theory will probably not work entirely successfully in a classroom setting. As Krashen (1979) suggests, hypotheses may be just hypotheses. Krashen (1982) also states that to rely only on theory is dangerous. But language teachers, especially non-native ones, want to have more realistic and reliable theory. It seems to me that we have found enough counter-evidence and we still need to define elements for a better theory of L2 acquisition and learning.

One of the most controversial aspects of Monitor Theory is the minor role it assigns to conscious attention, awareness and learning. Krashen (1982) asserts that conscious learning plays virtually no role in L2 acquisition; however, we need to redefine consciousness, attention, and awareness. Perspectives from human information processing theory and skill acquisition theory which involve significant amounts of conscious and deliberate processing can offer us a clear image about L2 learning and acquisition.

In the theory of human information processing and skill acquisition, the factors of memory, practice, attention and awareness play very important roles. It is also suggested that learning and acquisition are continuums, as in McLaughlin et al (1983), Morrison and Low (1983), Littlewood (1984), Widdowson (1984), and others. For instance, the distinction between controlled and automatic process presented by McLaughlin et al (1983) is not based on a distinction between conscious and subconscious processing. Rather, it is based on whether or not the skill is established in long-term memory. Since the transfer of performance from short-term memory control (controlled process) to long-term memory control (automatic process) and the retention of long-term memory depend on the depth of learning and the amount of practice (Brown 1985; Logan 1985), the controlled process versus automatic process distinction can be viewed as a continuum. Further, McLaughlin et al (1983) argue that the successful processing of a certain input depends on the features of the input and person's information-processing ability which may be enhanced by knowledge and expectations. Underwood (1982) states that awareness is necessary anytime a choice is required and practice enables us to anticipate future conditions and our future responses. In short, if all the information in short-term memory required to perform a task is transferred to long-term memory through sufficient practice, attention becomes less necessary and the skill is thought to be established.

From the viewpoint of the approach to language acquisition and learning summarized above, conscious learning which Krashen (1982) disregards still holds an important place even in the communicative classroom. However, there are some problems when we apply the skill acquisition theory into the language classroom where both comprehensible input and comprehensible output are available to learners. Although we need to acquire routinized behavior, we clearly do not want to depend on simple repetition practice or mindless drill.

According to skill acquisition theory, any task performance is conceived of as consisting of a hierarchical structure (tasks and sub-tasks). After enough practice, the establishment of permanent associations between relevant sub-tasks makes the task automatic (Brown 1985). Yet natural language used in the service of a communicative goal does not appear to be strictly hierarchical. The study of reading skill by Carr et al (1985) reports that several groups of component skills are relatively independent of one another. Their findings may suggest that acquisition in some sub-skills is probably independent of acquisition in other sub-skills. If each language-related skill acquisition takes place independently and in a predictable order as suggested in the L2 acquisition studies, at each developmental stage, we need to establish the most effective practice.

The conditions of practice which can provide us with the ability to process information and eventually produce automatic performance are not entirely clear because we still cannot identify precisely the stages of L2 development and general principles of L2 acquisition. Therefore, we need to do more empirical research on the developmental stages in L2 acquisition and to find out what constitutes the most effective practice at each developmental stage.

V. Summary

This paper reviews main elements of the Monitor Theory and points out several inadequacies. The discussion leads to the following conclusions.

First, the acquisition-learning distinction which is based on the questionable distinction between consciousness and subconsciousness needs to be reconsidered. Rather, it is more realistic to regard acquisition and learning as a continuum, though the importance of unconscious processes and the limitations of conscious processes must be taken into consideration.

Second, it is hard to believe that L2 acquisition can be controlled by the same language acquisition device used in L1 beyond the critical period for language acquisition. The natural order found in L2 acquisition does not appear to be as invariable as that of L1 acquisition although we should not ignore a certain tendency. Since the causes of the varied operation of L2 acquisition mechanism cannot be attributed to the result of interference from the Monitor, it seems premature to claim that L2 adult learners can rely on only natural language acquisition mechanisms.

Third, the redefinition of consciousness, attention, and awareness makes it clear that monitoring plays a very important role in L2 acquisition and learning. We need to find out the appropriate monitoring strategies and how to foster them.

Fourth, providing L2 learners with only comprehensible input does not always secure stable language acquisition. Learners need not only to receive comprehensible input but also to have chances to produce comprehensible output from the early stages. To avoid fossilization, they probably need to be focused on both the meaning and the form.

Fifth, although a low level of affective filters may be helpful in language acquisition, it is not fair to put it into language acquisition theory. The apparent impossibility of achieving the low level of affective filters in every given teaching situation renders the theory unrealistic.

Finally, this paper summarizes a way of looking at language acquisition phenomena from viewpoints of human information processing theory and skill acquisition theory. On the basis of the distinction between controlled processes and automatic processes it is suggested that language learning does lead to language acquisition through sufficient practice. Due to the unknown nature of L2 acquisition, it is not entirely clear what constitutes the most effective practice at each developmental stage. The examination of the stages of language

growth and general principles of L2 acquisition and the redefinition of effective practice need to be main concerns in future research.

ACKNOWLEDGMENTS

The author would like to thank Paul E. Munsell, Kenji Kitao, Mamoru Kinjo, S. Kathleen Kitao, and Paul Thompson for their helpful comments on earlier versions of this paper.

NOTE

This paper is a revised version of a part of my master's thesis written at Michigan State University in 1986.

REFERENCES

Bickerton, Derek. 1981. Roots of Language. Ann Arbor: Karoma.

Brown, Roger A. 1973. A First Language: The Earlier Stages. Cambridge, Mass.: Harvard UP.

Brown, Tracy L. 1985. "Defining the Role of Automaticity in Skill Acquisition." Diss. Michigan State U.

Carr, Thomas H., Tracy L. Brown, and Linda G. Vavrus. 1985. "Using Component Skills Analysis to Integrate Findings on Reading Development." The Development of Reading Skills. Ed. Thomas H. Carr. San Francisco: Jossey-Bass. 95-108.

Clark, Virginia P., Paul A. Eschholz, and Alfred F. Rosa, eds. 1985. Language: Introductory Readings. 4th ed. New York: St. Martin's Press.

Davies, Alan, Clive Criper, and A. P. R. Howatt, eds. 1984. Interlanguage. Edinburgh: Edinburgh UP.

Eckman, Fred R., Lawrence H. Bell, and Diane Nelson, eds. 1984. Universals of Second Language Acquisition. Rowley, Mass.: Newbury House.

Flynn, Suzanne. "A Universal in L2 Acquisition Based on a PBO Typology." Eckman, Bell, and Nelson 75-87.

Fromkin, Victoria, and others. "The Development of Language in Genie: A Case of Language Acquisition Beyond the 'Critical Period.'" Clark, Eschholz, and Rosa 112-30.

Gass, Susan, and Josh Ard. 1984. "Second Language Acquisition and the Ontology of Language Universals." Language Universals and Second Language Acquisition. Ed. William E. Rutherford. Amsterdam: John Benjamins. 33-68.

Gibbons, John. 1985. "The Silent Period: An Examination." Language Learning 35 : 255-67.

Hatch, Evelyn, Judy W. Gough, and Sabrina Peck. 1985. "What Case

Studies Reveal about System, Sequence, and Variation in Second Language Acquisition." Beyond Basics: Issues and Research in TESOL. Ed. Marianne Celce-Murcia. Rowley, Mass.: Newbury House. 37-59.

Holzman, Mathilda. 1984. "Evidence for a Reciprocal Model of Language Develpoment." Journal of Psycolinguistic Research 13: 119-46.

Krashen, Stephen D. 1979. "A Responce to McLaughlin, 'The Monitor Model: Some Methodological Considerations.'" Language Learning 29: 151-168.

---. 1982. Principles and Practice in Second Language Acquisitioin. Oxford: Pergamon Press.

Kumpf, Lorraine. "Temporal Systems and Universality in Interlanguage: A Case Study." Eckman, Bell, and Nelson 132-43.

Lenneberg, Eric H. 1967. Biological Foundations of Language. New York: Wiley.

Littlewood, William. 1984. Foreign and Second Language Learning: Language Acquisition Research and Its Implications for the Classroom. Cambridge: Cambridge UP.

Logan, Gordon D. 1985. "Skill and Automaticity: Relations, Implications, and Future Directions." Canadian Journal of Psychology 39: 367-86.

Long, Michael H. 1975. "Group Work and Communicative Competence in the ESOL Classroom." On TESOL '75. Ed. Marina K. Burt and Heidi C. Dulay. Washington, D.C.: TESOL. 211-23.

---. 1983. "Native Speaker/Non-Native Speaker Conversation in the Second Language Classroom." On TESOL '82. Ed. Mark A. Clarke and Jean Handscombe. Washington, D.C.: TESOL. 207-25.

McLaughlin, Barry. 1978. "The Monitor Model: Some Methodological Considerations." Language Learning 28: 309-32.

McLaughlin, Barry, Tammi Rossman, and Beverly McLeod. 1983. "Second

Language Learning: An Information-Processing Perspective." Language Learning 33: 135-58.

Morrison, Donald M., and Graham Low. 1983. "Monitoring and the Second Language Learner." Language and Communication. Ed. Jack C. Richards and Richard W. Schmidt. New York: Longman. 228-50.

Moskowitz, Breyne A. "The Acquisition of Language." Clark, Eschholz, and Rosa 45-72.

Munsell, Paul, and Thomas H. Carr. 1981. Rev. of Second Language Acquisition and Second Language Learning, by Stephen D. Krashen. Language Learning 31: 493-502.

Oller, John W., Jr. 1983. "Some Working Ideas for Language Teaching." Methods That Work. Ed. John W. Oller, Jr. and Patricia A. Richard-Amato. Rowley, Mass.: Newbury House. 3-19.

Pica, Teresa, Richard Young, and Catherine Doughty. 1987. "The Impact of Interaction on Comprehension." TESOL Quarterly 21: 737-58.

Pines, Maya. "Genie: A Postscript." Clark, Eschholz, and Rosa 131-2.

Skehan, Peter. 1987. "Individual Differences, Input, and Interaction: A Comparison of First and Foreign Language Learning." JALT Journal 9: 1-14.

Swain, Merrill. 1985. "Communicative Competence: Some Roles of Comprehensible Input and Comprehensible Output in Its Development." Input in Second Language Acquisition. Ed. Susan Gass and Carolyn Madden. Rowley, Mass.: Newbury House. 235-53.

Takala, Sauli. 1984. Rev. of Language Two, by Heidi C. Dulay, Marina K. Burt, and Stephen D. Krashen. Language Learning 34: 157-74.

Underwood, Geoffrey. 1982. "Attention and Awareness in Cognitive and Motor Skills." Aspects of Consciousness. Ed. Geoffrey Underwood. London: Academic Press. 111-45.

VanPatten, Bill. 1984a. "Communicative Values and Information

Processing in L2 Acquisition." On TESOL '84. Ed. Penny Larson, Elliot L. Judd, and Dorothy S. Messerschmitt. Washington, D.C.: TESOL. 89-99.

---. 1984b. "Processing Strategies and Morpheme Acquisition." Eckman, Bell, and Nelson 88-98.

Weir, Ruth H. 1962. Language in the Crib. The Hague: Mouton.

Widdowson, Henry G. "Discussant." Davies, Criper, and Howatt 324-29.

Wode, Henning. "Some Theoretical Implications of L2 Acquisition Research and the Grammar of Interlanguage." Davies, Criper, and Howatt 162-84.